REMARKS

Claims 2-54 have been rejected under 35 U.S.C. § 121 and are subject to a restriction requirement. Claims 2-35 have been canceled, thus claims 36-54, in Group I, are drawn to a method of stent delivery. Applicant elects Group I, claims 36-54, for prosecution.

The drawings have been objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because the reference numbers 58-61 are not mentioned in the description. Upon notice of allowance, Applicants will amend the drawings to delete reference number 58-61.

The Abstract has been rewritten in narrative form as requested by the Examiner.

The reference in the specification to patents that may be listed on the Information Disclosure Statement are informative of different types of catheters and will remain in the application.

Various objections made relating to claims 2-36, now canceled, are moot.

The specification has been amended to conform with FIGS. 1 and 2 which show the slit running all the way to port 17.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current Response. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

It is believed that the pending claims are now in condition for allowance and it is respectfully requested that the application be considered at the earliest convenience. The

undersigned attorney can be reached at (310) 824-5555 to facilitate prosecution of the application and to resolve any minor issues.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please enter the following substitute paragraph from the specification at page 1, line 5:

This application is a divisional of U.S. Serial No. 09/119,344 filed July 20, 1998, now U.S. Patent No. 6,113,607, which is a divisional of U.S. Serial No. 08/630,528 filed April 10, 1996, now U.S. Patent No. 5,782,855, which is a divisional of U.S. Serial No. 08/085,959 filed July 6, 1993, now U.S. Patent No. 5,507,768, which is a continuation-in-part application of U.S. Serial No. 07/647,464 filed January 28, 1991, now abandoned.

Please enter the following substitute paragraph from the specification at page 3, line 25:

Another method and system[s] involves disposing a compressed or otherwise small diameter stent about an expandable member such as a balloon on the distal end of a catheter, advancing the catheter through the patient's vascular system until the [sent] stent is in the desired location within a blood vessel and then expanding the expandable member on the catheter to expand the stent within the blood vessel. The expanded expandable member is then contracted and the catheter withdrawn, leaving the expanded stent within the blood vessel, holding open the passageway thereof.

Please enter the following substitute paragraph from the specification at page 6, line 26:

In a typical situation, the guidewire used to deliver a dilatation catheter through the patient's vascular system to a stenotic region therein is left disposed within the patient after the dilatation catheter has been removed therefrom. To maintain access to the stenotic region,

the distal end of the guidewire should be left crossing the stenotic region where the stent is to be placed. The proximal end of the guidewire, which extends out of the patient, is first inserted through an elastic cone by threading the guidewire into the smaller and out the larger of the two apertures which comprise the cone. then the guidewire is inserted through the port in the distal end of the intravascular catheter which has a stent mounted on the expandable member. The intravascular catheter is disposed within the delivery sheath with the distal end of the catheter extending out the port in the distal end of the delivery sheath to facilitate the insertion of the proximal end of the guidewire. The relative axial position between the delivery sheath and intravascular catheter is adjusted so that the expandable member on the distal extremity of the intravascular catheter with the expandable stent mounted thereon is pulled back into the inner lumen of the delivery sheath. The distal end of the delivery sheath is then tucked within the large aperture of the elastic cone. Tucking the delivery sheath within the elastic cone aids the advancement of the stent delivery system through the patient's vascular system by providing the system with a profile suited for making turns through tortuous vessels. The delivery sheath and the catheter therein are then advanced through the patient's vascular system, preferably <u>over a guide wire which extends from outside the patient to the ostium of the desired coronary artery,</u> over a guidewire which extends from outside the patient to the ostium of the desired coronary artery, until the stent mounted on the expandable member of the intravascular catheter is positioned within the stenotic region of the patient's blood vessel.

Please enter the following substitute paragraph from the specification at page 7, line 6:

The delivery sheath and the intravascular catheter may be withdrawn together or the sheath may be withdrawn first followed by withdrawal of the catheter. [The] <u>They are</u>

removed over the guidewire until the proximal guidewire port on the sheath and/or the catheter exits the proximal end of the guiding catheter, the sheath and the catheter can be peeled away from the guidewire with the guidewire sliding through the slits which extend distally from the proximal ports thereof. The exposed section of the guidewire is secured, e.g., manually held, in place so that the sheath and the intravascular catheter can be pulled off the proximal end of the guidewire.

Please enter the following substitute paragraph from the specification at page 9, line 13:

The delivery sheath 10 has a distal port 17 in its distal end which is in fluid communication with the outer lumen 11 and a proximal port 18 disposed proximally to the distal port. The distal portion of delivery sheath 10 tapers down in a spherical-like manner so that the cross-sectional area is somewhat less in the distal region than the cross-sectional area of the rest of the delivery sheath. A slit 19 extends from the proximal port 18 to [a location just proximal to] the distal port 17. In one embodiment, a plurality of slits 59 in the wall of sheath 10 extend a short distance from the distal port 17. As contemplated, the slits 59 would facilitate in the relative axial position adjustment of the sheath 10 and intravascular catheter 12.

IN THE ABSTRACT

[The invention is directed to a stent delivery method and system which generally includes an elongated delivery sheath and a catheter disposed within an outer lumen of the sheath having an expandable member on its distal extremity. an expandable stent is mounted on the expandable member of the catheter. The distal portion of the sheath tapers down and is tucked within an elastic cone during transport of the stent to a stenotic region. A manipulating device is

provided on the proximal end of the delivery system to effect relative axial movement between the sheath and the catheter so as to expose the stent mounted on the expandable member on the catheter within a body lumen such as a coronary artery and allow the expansion of the stent by the expansion of the expandable member. the elastic cone thereby disengages from the sheath and collapses about the distal end of the catheter. The delivery sheath has a first port in its distal end and a second port in the sheath wall proximally disposed from the distal end of the sheath. The catheter likewise has a first port in its distal end and a second port proximally disposed from the distal end of the catheter. An inner lumen extends within the distal portion of the catheter between the first and second ports and slidably receives a guiding member such as a guidewire. This system allows the stent to be delivered over a guidewire previously advanced to the desired location within a body lumen.]

A stent delivery assembly includes a catheter for carrying an intravascular stent for use in a body lumen. The catheter assembly includes a rapid exchange feature in which a proximal port is spaced a relatively short distance form the distal end of the catheter and a relatively long distance from the proximal end of the catheter. A stent is mounted on the expandable member or balloon portion of the catheter.